

REMARKS

Claims 2-15 and 17-20 were pending when last examined, all of which stand rejected. Claim 15 has been canceled, and Claim 14 has been amended. Claims 2-13 and 17-20 have been amended to depend from Claim 14. No new matter has been added.

Claim Objections/Warnings

The Examiner warned that if Claim 14 were to be found allowable, Claim 15 will be objected to as being a substantial duplicate of Claim 14. Cancellation of Claim 15 addresses this potential objection.

Claim Rejections under 35 U.S.C. § 103

Claims 2-5, 10-12, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,331,418 to Klebe ("Klebe") in view of U.S. Patent No. 5,098,254 to Becicka et al. ("Becicka").

Klebe teaches an operator's carriage that can move vertically with respect to the ground and independently of a load carriage, so that an operator can position himself adjacent the load carriage at any vertical level of a warehouse crane. Using the operator's carriage, the operator transfers loads from the load carriage to load storage stations located at predetermined heights.

Becicka discloses a robotic palletizer for automatically placing cartons on a pallet using a "hand assembly" that is designed to grasp a carton from conveyor 44 and release it onto a pallet 14. The "hand assembly" knows where to release the carton based on a first proximity detector that senses the vertical position of the grasped carton, and a second proximity detector that senses the horizontal position of the grasped carton. The two sensors can work together to properly "stack" the cartons on a pallet.

Claim 14 is patentable over Klebe and Becicka because it recites, "the height of the pallet-carrying device ... is controllable on the basis of the degree of charging of the order pallet to a height allowing substantially horizontal transfer of articles from the retrieval pallet to the order pallet." This feature of the invention of Claim 14 is further described in page 2, line 19 – page 3, line 10 of the Specification. In Klebe's system, the pallet-carrying device would correspond to the load carriage 12. While Klebe's load carriage 12 moves along a vertical mast, there is no teaching or suggestion that the height of the load carriage is "controllable on the basis

of the degree of charging of the order pallet” (e.g., the amount of weight or pressure on the order pallet) in the load carriage. This ability to control the height of the pallet-carrying device based on the charge on the order pallet 20 is a patentable feature that allows a “substantially horizontal transfer of articles from the retrieval pallet to the order pallet” without constant manual adjustment of the pallet-carrying device height.

Becicka does not teach or suggest controlling the “height of the pallet-carrying device” in any way. Whereas Becicka’s “hand assembly” uses sensors that detect the location of the currently grasped carton to the cartons that are stacked on the pallet 14, these sensors have no relation to a charge on the pallet order. Furthermore, because Becicka’s system includes an automatic “hand assembly” that transfers cartons, as opposed to a human picker, the ergonomic advantage of a “substantially horizontal transfer of articles from the retrieval pallet to the order pallet” is meaningless in Becicka. Moreover, neither the conveyor 44 nor the pallet 14 is height-adjustable in Becicka’s system.

For the foregoing reasons, Klebe and Becicka, even in combination, do not teach all the elements of Claim 14. Claim 14, and Claims 2-13 and 17-20 that depend from Claim 14, are in condition for allowance.

Conclusion

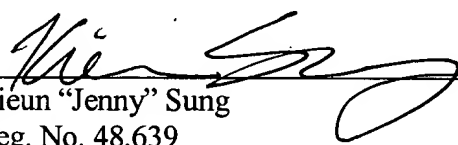
Claims 2-14 and 17-20 are currently pending in the application. Although the arguments presented above are not exhaustive, Applicant believes that the above arguments are sufficient to demonstrate that the invention is distinguishable from the cited references. Thus, based on the above amendments and remarks, it is respectfully submitted that the claims are in condition for allowance.

If the Examiner wishes to discuss any aspect of this application, the Examiner is invited to telephone Applicants' undersigned attorney at 650-833-2121.

Any fee due for this Amendment may be charged to Deposit Account No. 07-1896.

Respectfully submitted,

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Kieun "Jenny" Sung
Reg. No. 48,639
Attorney for Applicant

GRAY CARY WARE & FREIDENRICH LLP
2000 University Avenue
East Palo Alto, CA 94303-2248
Tel: (650) 833-2000

KJS